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MEMORANDUM

To:

Bonnie Lavelle, Chris Weis

From:

Adrian Bradley, Mary Goldade

Date:

November 15, 1999

Project:

Vasquez Boulevard and I-70

Re:

Minimum Detection Limit Study for Arsenic and Lead in Site Soils: Study #2

cc:

Project Files

This memorandum provides the information necessary to perform the second of four method detection limit (MDL) studies, using soils collected at the VBI70 site. The goal of the studies is to identify the MDL for arsenic and lead in multiple soils that are representative of soils across the site boundaries.

General Approach

As discussed at the October 8, 1999 meeting, each MDL study will be comprised of 4 different site soils, three of which were collected from residential properties within the study area and one that was collected at the 'baseline' soil site.

Sample selection over the course of the four MDL studies will alternate among the five neighborhoods so that soils that across the study area are represented. The number of samples that are anticipated to be included from each neighborhood and from the baseline soil is provided in Table 1.

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Table 1. Estimated Number of Properties from each Neighborhood

| Neighborhood | Estimated Number of Properties | | | | | | | | |
|----------------|--------------------------------|--|--|--|--|--|--|--|--|
| Cole | 3 | | | | | | | | |
| Clayton | 3 | | | | | | | | |
| Five Points | 2 | | | | | | | | |
| Globeville | 2 | | | | | | | | |
| Swansea/Elyria | 2 | | | | | | | | |
| Baseline | 4 | | | | | | | | |

All samples must be dried and sieved using the #10 sieve prior to analysis (The baseline soil has been dried but should also be sieved using a #10 sieve). A minimum mass of 70 g (10 g for each replicate sample) of the prepared sample is required. The MDL study will be performed in accordance with the Phase III Field Investigation Project Plan (USEPA 1999).

Candidate Samples

These site soils for MDL Study #2 were selected by querying the Phase III database for yard soil samples containing arsenic concentrations between 10 and 15 mg/kg. From the resulting list, one sample from Clayton, Globeville, and Swansea/Elyria were selected. The three samples to be included in MDL Study #2 are provided in Table 2. Seven aliquots of the soil from the baseline site have been prepared, and will be delivered under chain-of-custody to the VBI70 Field Office on Monday, November 15, 1999. A copy of the chain-of-custody form is attached. The next study will be conducted in approximately two weeks, and we will provide you with another list of samples. A summary of the number of neighborhoods selected to date is provided in Table 3.

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Table 2. List of Residential Samples for MDL Study #2

| Property Address | Neighborhood | Sample ID Number | | | | |
|----------------------|--------------|------------------|--|--|--|--|
| 3615 Jackson Street | Clayton | 3-01071-B | | | | |
| 4365 Cherokee Street | Globeville | 3-01714-B | | | | |
| 4840 Fillmore Street | Swansea | 3-00414-B | | | | |

Table 3. Neighborhoods Included in MDL Study #1 and MDL Study #2

| Neighborhood | Number of Samples | | | | | | | |
|--------------|-------------------|--|--|--|--|--|--|--|
| Clayton | 2 | | | | | | | |
| Cole | 1 | | | | | | | |
| Five Points | 1 | | | | | | | |
| Globeville | 1 | | | | | | | |
| Swansea | 1 | | | | | | | |

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Attachment

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| U.S. ENVIRONMENTAL PROTECTION AGENCY Environmental Services Division | | | | | | | С | CHAIN OF CUSTODY RECORD | | | | | | | | 999 18TH. STREET DENVER, CO. 80202-2413 | | | | | |
|--|---|--|--------|----------|----------------------------------|--------------------|-----------------------------|--------------------------|-----------------|---------------------------|----------|------|---|-----------|--|--|--------------------------|---------------------------------------|--|--|--|
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